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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/378,969	08/23/1999	ROBERT B. HAVEKOST	F0467/7006(W	9703

7590 04/21/2004

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ART UNIT	**PAPER NUMBER**
2672	17

DATE MAILED: 04/21/2004

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 17

Application Number: 09/378,969
Filing Date: August 23, 1999
Appellant(s): HAVEKOST ET AL.

William McClellan
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed February 24, 2003.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 1-24 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,257,206	HANSON	10-1993
5,768,148	MURPHY	6-1998

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims1-5, 8-12 and 14-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Hanson. This rejection is set forth in prior Office Action, Paper No. 11.

Claims 1, 3-5,9, 11 and 12 are rejected under 35 U.S.C. 102 (b) as being anticipated by Murphy. This rejection is set forth in prior Office Action, Paper No. 11.

(11) Response to Argument

A. The rejection of claims 1-5, 8-12 and 14-24 as anticipated by Hanson.

1. Applicant argues Hanson fails to disclose that the event table and the trend chart may be viewed on the display screen at the same time as recited by claim 1.

In reply, Hanson suggest that the event table and the trend chart may be viewed on the display screen at the same time in that he teaches gathering and storing real-time process variable data (col. 5,ll. 60-65) for analyzing historical data to detect trends (col. 6, ll. 40-50). Figs. 6 & 7 display various parameters and values that correspond to events, such as the displayed highlighted event indicating an alarm at a specific point. In Fig. 3 element 335, Hanson discloses user specification of parameters (e.g. time and events) to be monitored and displayed when events such as those signaling alarm signals occur (col. 6, ll. 45-50; col. 7,ll. 41-50). At Fig. 8 Hanson discloses simultaneously displaying a histogram representative of the trends of corresponding process variables/events along with a listing of parameters and values, which are information describing process events and thus representative of an event table (col. 9-10, ll. 66-10).

Applicant argues Hanson's alarm boxes of Figs. 6 & 7 are different from the claimed event table that contains information describing process events that are related to the selected process parameters.

In reply, the displayed highlighted event indicating an alarm at a specific point as shown in Figs. 6 & 7, is representative of an event as described by the Applicants

specification since it indicates a type of action/event that occurred at a specific time during the operation of a specific process, which may correspond to an event category.

Applicant argues Hanson does disclose information describing process events that occurred during a selected time window and a trend chart.

In reply, the text of Fig. 8 corresponds to the Applicant's event table in that the text of Fig. 8 specifically describes information pertaining to an event as the statistic calculations used to develop the histogram displaying the trends of events over time are based on formula using the data from the events (col.8, ll. 25-30). Hanson suggests that the sampling interval/time is set by either the response of the process variable/event category, or the user (col. 7,ll. 41-49). Additionally, Hanson's Fig. 8 is representative of a trend chart as the vertical bars that form the histogram are representative of the trends of corresponding process variables/events (col. 9-10,ll. 66-10).

Applicant argues Hanson's Fig. 3 does not disclose information describing process events that are included in a trend chart when a chart is generated.

In reply, Fig. 3 of Hanson discloses maintaining data of individual process variables/events for a period of time (col. 7, ll. 10-21), which correlates with the

Applicant's definition of information descriptive of an event including a time, category or type. Fig. 3 of Hanson also discloses user selection of parameters that are used as triggers to identify those process events or characteristics that represent trends and used to automatically generate a histogram/trend chart (col. 7, ll. 55-65), which Hanson suggests displaying along with the parameters and values that are descriptive information pertaining to process events and representative of an event table (col. 9-10, ll. 66-10). Additionally, Applicants claim indicates that the trend chart and event table ***may*** be viewed at the same time, which implies that they may not. In such cases Hanson also suggests independent display of the event table and trend chart as he discloses the generation of multiple charts displays (Fig. 2 "220").

Thus, Hanson discloses a trend chart and an event table that may be viewed on the display screen at the same time.

2. Applicant argues Hanson fails to disclose event markers being indicative of events from the event table and the respective times of the events as recited in claim 2.

In reply, Hanson discloses displaying a highlighted alarm signal to mark instances in time where a particular process/event parameter is triggered for example as an alarm for meeting/exceeding user specified limits (Fig. 7 "351"; col. 9, ll. 45-54).

3. Applicant argues Hanson fails to disclose selecting at least one of the event markers displayed on the trend chart and highlighting on the event table the event associated with selected event marker as recited in claim 6 and 7.

In reply, Hanson teaches user selection of set points (col. 10, ll.28-33), which are points indicating occurrences of variations resulting in lose of statistical control (col.5, ll. 18-30). Hanson discloses that occurrences indicating a loss of statistical control being marked visually as a highlighted alarm signal (col. 9, ll. 45-54).

4. Applicant argues Hanson fails to disclose a process control and/or monitoring system including means for generating and displaying an event table containing information describing process events that occurred during the selected time window, such that the event table and the trend chart may be viewed on the display screen at the same time as recited in claim 9.

In reply, Hanson discloses a process control system using computer means to define control limits, trend thresholds and dynamic models (abstract) using in part user specification of limits and/or characteristics of processes/events to be monitored, such that triggered limits result in the display of a histogram representative of the trends of corresponding process variables/events along with a listing of parameters and values, which are information describing process events representative of an event table (col. 9-10, ll. 66-10). The text of Hanson's Fig. 8 corresponds to the Applicant's event table in

that the text of Fig. 8 specifically describes information pertaining to an event as the statistic calculations used to develop the histogram displaying the trends of events over time are based on formula using the data from the events (col.8, ll. 25-30). Hanson suggests that the sampling interval/time is set by either the response of the process variable/event category, or the user (col. 7,ll. 41-49). Additionally, Hanson's Fig. 8 is representative of a trend chart as the vertical bars that form the histogram are representative of the trends of corresponding process variables/events (col. 9-10,ll. 66-10). Fig. 3 of Hanson discloses maintaining data of individual process variables/events for a period of time (col. 7, ll. 10-21), which correlates with the Applicant's definition of information descriptive of an event including a time, category or type. Fig. 3 of Hanson also discloses user selection of parameters that are used as triggers to identify those process events or characteristics that represent trends and used to automatically generate a histogram/trend chart (col. 7, ll. 55-65), which Hanson suggests displaying along with the parameters and values that are descriptive information pertaining to process events and representative of an event table (Fig. 8; col. 9-10, ll. 66-10). Additionally, Applicants claim indicates that the trend chart and event table ***may*** be viewed at the same time, which implies that they may not. In such cases Hanson also suggests independent display of the event table and trend chart as he discloses the generation of multiple charts displays (Fig. 2 "220").

5. Applicant argues Hanson fails to disclose means for generating and displaying event markers on the display screen, the event markers being indicative of events from the event table and the respective times of the events as recited in claim 10.

In reply, Hanson discloses displaying a highlighted alarm signal to mark instances in time where a particular process/event parameter is triggered for example as an alarm for meeting/exceeding user specified limits (Fig. 7 "351"; col. 9, ll. 45-54).

6. Applicant argues Hanson fails to disclose means for highlighting an event marker displayed on the trend chart in response to selection of a process event displayed on the event table and associated with the event marker as recited in claim 13.

In reply, Hanson discloses displaying histograms, which are a graphical representation of the process/event trends, have limits/trend lengths, which specify the points at which statistical control is lost (col. 9-10,ll. 60-7) and signifies an alarm signal (col.9, ll. 45-50), which may be highlighted. The highlighted alarm signals of Hanson mark instances in time where a particular process/event parameter is triggered for example as an alarm for meeting/exceeding user specified limits (Fig. 7 "351"; col. 9, ll. 45-54), and are thus event markers. Hanson also disclseos selecting a trend length, which represents information describing an event (Fig. 8). Thus, Hanson inherently discloses selecting a displayed process event associated with an event marker results

in the highlighting of the displayed marker, in that the selection of a displayed trend length in the displayed table of information describing events would result in the indication of an alarm, which may be highlighted.

7. Applicant argues Hanson fails to disclose a first display area configured to display at least one trend line representative of at least one parameter associate with the process and a second display area configured to display information representative of at least on process event, where event markers related to the at least one process event and displayed on the first display area as recited in claim 14.

In reply, Hanson discloses displaying in a first display area a histogram, which is a display of vertical bars representative of a parameter associated with the process (Fig. 8); displaying in a second display area varying parameters describing the process event (text of Fig. 8). Hanson discloses alarm signals, which represent the limits/trend lengths of histograms and specify the points at which statistical control is lost (col. 9-10,ll. 45-50, 60-7) mark instances in time where a particular process/event parameter is triggered for example as an alarm for meeting/exceeding user specified limits (Fig. 7 "351"; col. 9, ll. 45-54), and are thus event markers that are displayed (Fig. 7 "351"). Hanson inherently discloses that the markers are displayed in the first display area as he teaches archiving in a data file and making available for display the statistical data obtained using the raw process/event data (col. 8, ll. 27-33).

8. Applicant argues Hanson fails to disclose that the information representative of the process events includes a time of occurrence of each of the at least one process event as recited in claim 16.

In reply, Hanson discloses gathering data of process events at designated sampling intervals (col.7, ll. 18-24), which are used for determining the grouping of data (col. 7, ll. 42-50) and for generating/updating histograms representing the trends of the particular process/event data (col. 7, ll. 55-62).

9. Applicant argues Hanson fails to discloses means for simultaneously displaying a trend graph representing at least a portion of the historical trend data and a table representing at least a portion of the event records as recited in claim 17.

In reply, Hanson discloses a process control system using computer means to define control limits, trend thresholds and dynamic models (abstract) using in part user specification of limits and/or characteristics of processes/events to be monitored, such that triggered limits result in the display of a histogram representative of the trends of corresponding process variables/events (col. 7, ll. 55-62) along with a listing of parameters and values, which are information describing process events representative of an event table (Fig. 8; col. 9-10, ll. 66-10). The text of Hanson's Fig. 8 corresponds to the Applicant's event table in that the text of Fig. 8 specifically describes information

pertaining to an event as the statistic calculations used to develop the histogram displaying the trends of events over time are based on formula using the data from the events (col.8, ll. 25-30). Additionally, Hanson's Fig. 8 is representative of a trend chart as the vertical bars that form the histogram are representative of the trends of corresponding process variables/events (Fig. 8; col. 9-10,ll. 66-10). Additionally, Applicants claim indicates that the trend chart and event table ***may*** be viewed at the same time, which implies that they may not. In such cases Hanson also suggests independent display of the event table and trend chart as he discloses the generation of multiple charts displays (Fig. 2 "220").

Applicant additionally argues Hanson fails to disclose an event database containing event records related to the process.

In reply, Hanson discloses maintaining an archived database of data for each process variable (col. 7, ll. 55-62).

10. Applicant argues Hanson fails to disclose means for displaying, on the trend graph, event markers that are related to the event records as recited in claim 20.

In reply, Hanson discloses the histograms, which are a graphical representation of the process/event trends, have limits/trend lengths, which specify the points at which statistical control is lost (col. 9-10,ll. 60-7) and signifies an alarm signal (col.9, ll. 45-50).

The alarm signals of Hanson mark instances in time where a particular process/event parameter is triggered for example as an alarm for meeting/exceeding user specified limits (Fig. 7 "351"; col. 9, ll. 45-54), and are thus event markers. Hanson also discloses archiving in a data file and making available for display the statistical data obtained using the raw process/event data (col. 8, ll. 27-33), thus indicating that the event markers are related to the event records. Thus, Hanson inherently discloses displaying the event markers on the trend graph as he indicates that the histogram limits indicate alarm points and he discloses making available for display statistical data.

11. Applicant argues Hanson fails to disclose a run time database containing current trend data and means for displaying the current trend data on the trend graph as recited in claim 21.

In reply, Hanson discloses automatically generating histograms for archived real time process variables/events as a database is updated (col. 7, ll. 55-62) and displaying the data as well as archiving it (col. 8, ll. 29-34).

12. Applicant argues Hanson fails to disclose a chart file containing a trend graph configuration information and filter settings from previously developed trend graphs, the chart file being used by the means to configure the trend graph as recited in claim 22.

In reply, Hanson discloses generating forecasting models using a selected group of historical process variable data/event data (col. 11, ll. 39-41, 58-65), where the model corresponds to the chart file having a trend graph and the configuration information corresponds to the selected historical data to be represented. Hanson discloses generating a time series forecasting model using residual data, which is the use of data previously used to model a trend graph to determine a current trend forecast (col. 12-13, ll. 55-3); such that the residual data represents filter settings from previous trend graphs.

13. Applicant argues Hanson fails to discloses a first display region on the screen that displays process trends related to the process variable and a second display region on the display screen that displays a table of event records related to the process variable as recited in claim 23.

In reply, Hanson discloses displaying in a first display area a histogram, which is a display of vertical bars representative of a parameter associated with the process (Fig. 8); displaying in a second display area a listing/table of varying parameters describing the process event (text of Fig. 8).

14. Applicant argues Hanson fails to disclose means for linking at least a portion of the table of event records to at least a portion of the event markers as recited in claim 24.

In reply, Hanson discloses alarm signals, which represent the limits/trend lengths of histograms and specify the points at which statistical control is lost (col. 9-10,ll. 45-50, 60-7) mark instances in time where a particular process/event parameter is triggered for example as an alarm for meeting/exceeding user specified limits (Fig. 7 "351"; col. 9, ll. 45-54), and are thus event markers. Hanson also discloses archiving in a data file and making available for display the statistical data obtained using the raw process/event data (col. 8, ll. 27-33), thus indicating that the event markers are related to the event records.

Thus in view of the above presented arguments, Hanson clearly discloses a method and means for generating and displaying both an event table and a trend chart that are simultaneously displayable.

B. The rejection of claims 1, 3-5, 9, 11 and 12 as anticipated by Murphy.

1. Applicant argues Murphy fails to disclose the event table and the trend chart may be viewed on the display screen at the same time as recited in claim 1.

In reply, Murphy discloses events, that are reports of device status (Fig. 5; col.12, ll. 3-5). Murphy further discloses a display area (Fig. 24) where multiple button selections are provided for selecting the display of any of data including an event logger and trends (Fig. 24, bottom left corner). Murphy also discloses a window environment

in which it is known that windows may be tiled such that plural windows may be simultaneously displayed.

Additionally, Fig. 69B of Murphy more clearly discloses the simultaneous display of trends and events. At Fig. 69B Murphy discloses an event register for providing the selection of varying numbers/codes. Murphy discloses that codes are used to described occurrences of metered events (col. 11, ll. 60-63). The left display portion of Fig. 69B discloses various metered values/parameters that are associated with the occurrences and the data graphically displayed. Murphy also teaches that the parameters/metered values are related to the events in that they are the values from metering devices indicating information such as power distribution (col. 12, ll. 65-67).

2. Applicant argues Murphy fails to disclose means for generating and displaying both an event table and a trend chart, and the event table and trend chart may be viewed on the display screen at the same time as recited in claim 9.

In reply, Murphy discloses software for monitoring and controlling selected aspects of power usage, where the software includes a dynamic data exchange server that supports modules such as the event logger module, waveform capture module and a Wonderware Intouch module, which is used to build screens and interfaces (col. 2,ll. 32-49). The event logger disclosed by Murphy provides for viewing, organizing and analyzing behavior in a power system (i.e. the events in a power system) (col. 2-3, ll.

65-7), which corresponds to generating and viewing events. The Wonderware Intouch module disclosed by Murphy includes generating representations using information from the server linked database such that interfaces including the metering of data are created and the waveform module of Murphy provides for viewing and analysis of the metered data (col. 2,ll. 49-60), which corresponds to generating and viewing trends. Additionally, Fig. 69B of Murphy more clearly discloses the simultaneous display of trends and events. At Fig. 69B Murphy discloses an event register for providing the selection of varying numbers/codes. Murphy discloses that codes are used to described occurrences of metered events (col. 11, ll. 60-63). The left display portion of Fig. 69B discloses various metered values/parameters that are associated with the occurrences and the data graphically displayed. Murphy also teaches that the parameters/metered values are related to the events in that they are the values from metering devices indicating information such as power distribution (col. 12, ll. 65-67).

Thus in view of the above presented arguments, Murphy clearly discloses a method and means for generating and displaying both an event table and a trend chart that are simultaneously displayable.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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April 19, 2004

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